

Val Lys Val Leu Leu Asp Asn Glu Thr Leu Lys Val Pro Lys Ile Pro
 210 215 220

Ser Glu Thr Asp Ala Glu Asn Xaa Lys Lys Lys Lys Val Leu Lys Val
 225 230 235 240

Xaa Asn Ala Tyr Asp Leu His Leu His Val Pro Lys Gly Leu Arg Leu
 245 250 255

Lys Thr Ala Arg Ala Leu Gly Ser Leu Trp Arg Ala
 260 265

(2) INFORMATION FOR SEQ ID NO:764:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 170 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(iii) HYPOTHETICAL: YES

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: *Helicobacter pylori*

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:764:

Met Glu Xaa Xaa Lys Lys Phe Val Ala Leu Gly Leu Leu Ser Ala Val
 1 5 10 15

Leu Ser Ser Ser Leu Leu Ala Glu Gly Asp Gly Val Tyr Ile Gly Thr
 20 25 30

Asn Tyr Gln Leu Gly Gln Ala Arg Leu Asn Ser Asn Ile Tyr Asn Thr
 35 40 45

Gly Asp Cys Thr Gly Ser Val Gly Cys Pro Pro Gly Leu Thr Ala
 50 55 60

Asn Lys His Asn Pro Gly Gly Thr Asn Ile Asn Trp His Ser Lys Tyr
 65 70 75 80

Ala Asn Gly Ala Leu Asn Gly Phe Gly Leu Asn Val Gly Tyr Lys Lys
 85 90 95

Phe Phe Gln Phe Lys Ser Leu Asp Met Thr Ser Lys Trp Phe Gly Phe
 100 105 110

Arg Val Tyr Gly Leu Phe Asp Tyr Gly His Ala Asp Leu Gly Lys Gln
 115 120 125

Val Tyr Ala Pro Asn Lys Ile Gln Leu Asp Met Val Ser Trp Gly Val
 130 135 140

Gly Ser Xaa Leu Leu Ala Asp Ile Ile Asp Xaa Arg Gln Arg Phe Phe
 145 150 155 160

Trp Tyr Phe Trp Trp Gly Arg Tyr Arg Arg
 165 170

(2) INFORMATION FOR SEQ ID NO:765:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 133 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(iii) HYPOTHETICAL: YES

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Helicobacter pylori

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:765:

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Met Asn Tyr Asp Asn Tyr Trp Asp Glu Asp Lys Pro Glu Leu Asn Ile
1           5           10           15

Thr Pro Leu Val Asp Val Met Leu Val Leu Leu Ala Ile Leu Met Val
          20           25           30

Thr Thr Pro Thr Leu Thr Tyr Lys Glu Glu Ile Ala Leu Pro Ser Gly
          35           40           45

Ser Lys Thr Ala Arg Ala Thr Gln Asp Lys Val Ile Glu Ile Arg Met
          50           55           60

Asp Lys Asp Ala Lys Ile Tyr Ile Asp Ser Gln Thr Tyr Glu Tyr Xaa
65           70           75           80

Ser Phe Pro Asp Thr Phe Asn Leu Leu Ser Lys Lys Tyr Asp Lys Asp
          85           90           95

Thr Arg Val Ser Ile Arg Ala Asp Lys Arg Leu Thr Tyr Asp Lys Val
          100          105          110

Ile Tyr Leu Leu Lys Thr Ile Lys Glu Ala Gly Phe Leu Lys Val Ser
          115          120          125

Leu Ile Thr Ser Pro
          130

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(2) INFORMATION FOR SEQ ID NO:766:

(1) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 71 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(11) MOLECULE TYPE: protein

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 147 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(iii) HYPOTHETICAL: YES

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Helicobacter pylori

(xi) SEQUENCE DESCRIPTION: major outer membrane protein

Met Glu Ile Ile Lys Lys Phe Val Ala Leu Gly Leu Leu Ser Ala Val
1 5 10 15
Leu Ser Ser Ser Leu Leu Ala Glu Gly Asp Gly Val Tyr Ile Gly Thr
20 25 30
Asn Tyr Gln Leu Gly Gln Ala Arg Leu Asn Ser Asn Ile Tyr Asn Thr
35 40 45
Gly Asp Cys Thr Gly Ser Val Val Gly Cys Pro Pro Gly Leu Thr Ala
50 55 60
Asn Lys His Asn Pro Gly Gly Thr Asn Ile Asn Trp His Ser Lys Tyr
65 70 75 80
Ala Asn Gly Ala Leu Asn Gly Phe Gly Leu Asn Val Gly Tyr Lys Lys
85 90 95
Phe Phe Gln Phe Lys Ser Leu Asp Met Thr Ser Lys Trp Phe Gly Phe
100 105 110
Arg Val Tyr Gly Leu Phe Asp Tyr Gly His Ala Asp Leu Gly Lys Gln
115 120 125
Val Tyr Ala Pro Asn Lys Ile Gln Leu Asp Met Val Ser Trp Gly Val
130 135 140
Gly Ser Ile Cys
145